=>
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chain nodes :
1 2 3 4 12
ring nodes :
5 6 7 8 9 10
chain bonds :
1-2 2-3 3-4 3-5
ring bonds :
5-6 5-10 6-7 7-8 8-9 9-10
exact/norm bonds :
1-2 2-3 3-4 3-5 5-6 5-10 6-7 7-8 8-9 9-10
isolated ring systems :
containing 5 :

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
12:CLASS 13:CLASS

L1 STRUCTURE UPLOADED

=>
Uploading C:\Program Files\Stnexp\Queries\10574048-amended-narrow.str

chain nodes :
6
ring nodes :
1 2 3 4 5
ring/chain nodes :
8
ring/chain bonds :
4-8
ring bonds :
1-2 1-5 2-3 3-4 4-5
exact/norm bonds :
1-2 1-5 2-3 3-4 4-5 4-8

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS

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L4      STRUCTURE UPLOADED

     FILE 'REGISTRY' ENTERED AT 14:47:26 ON 13 MAY 2008
L1               STRUCTURE UPLOADED
L2            36 S L1
L3          9243 S L1 SSS FULL
L4               STRUCTURE UPLOADED
L5             2 S L4 SAM SUB=L3
L6            58 S L4 SSS FULL SUB=L3

     FILE 'CAPLUS' ENTERED AT 14:48:23 ON 13 MAY 2008
L7             4 S L6

     FILE 'REGISTRY' ENTERED AT 14:48:29 ON 13 MAY 2008

     FILE 'CAPLUS' ENTERED AT 14:48:33 ON 13 MAY 2008
L8             2 S US200!-574048/APPS
L9             1 S L7 AND L8
L10            3 S L7 NOT L8

     FILE 'REGISTRY' ENTERED AT 14:48:57 ON 13 MAY 2008

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L1 HAS NO ANSWERS
L1                STR
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Structure attributes must be viewed using STN Express query preparation.

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L4 HAS NO ANSWERS
L4                STR
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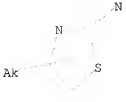


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Structure attributes must be viewed using STN Express query preparation.

L9   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2008 ACS on STN
AN   2005:300422  CAPLUS <<LOGINID::20080513>>
DN   142:373822
TI   Preparation of thiazoline derivatives as FXa inhibitors
IN   Kubo, Keiji; Kuroita, Takanobu; Kawamura, Masaki; Sakamoto, Hiroki
PA   Takeda Pharmaceutical Company Limited, Japan
SO   PCT Int. Appl., 192 pp.
```

CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005030740	A1	20050407	WO 2004-JP14685	20040929
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1669352	A1	20060614	EP 2004-773616	20040929
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
	JP 2005126428	A	20050519	JP 2004-288257	20040930
	US 20070010528	A1	20070111	US 2006-574048	20060512 <--
PRAI	JP 2003-341430	A	20030930		
	WO 2004-JP14685	W	20040929		

OS MARPAT 142:373822
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [R = (un)substituted cyclic hydrocarbon group, (un)substituted heterocyclic group; X = bond, (un)substituted divalent chain hydrocarbon group; X' = bond, NR5; R5 = H, (un)substituted hydrocarbon group, etc.; Y = (un)substituted divalent hydrocarbon group; Y' = bond, carbonyl; ring A = (un)substituted nitrogenous heterocycle; Z1, Z3 = bond, (un)substituted divalent chain hydrocarbon group; Z2 = bond, NR6; R6 = H, (un)substituted hydrocarbon group, etc.; a = 0-2; ring B = II, etc.; R2 = H, halo, etc.; R3 = H, (un)substituted hydrocarbon group, etc.; R4 = (un)substituted hydrocarbon group; further details on R2, R3, R4 were provided.] were prepared For example, reaction of 1-(3-((6-chloro-2-naphthyl)sulfonyl)propionyl)piperazine, e.g., prepared from 1-piperazinecarboxylic acid tert-Bu ester, with 4-chloromethyl-1,3-thiazole-2-amine·2HCl followed by treatment with iodomethane afforded compound III·2HCl. In FXa (blood coagulation factor Xa) inhibition assays, the IC50 value of compound III·2HCl was 22 nM. Compds. I are claimed useful for the treatment of myocardial infarction, obstructive arteriosclerosis, etc. Formulations are given.
RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d l10 tot bib abs hitstr

L10 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2007:1177856 CAPLUS <<LOGINID::20080513>>
DN 147:469326
TI Preparation of pyridyl thiazolyl amines as glucokinase activators
IN Aicher, Thomas Daniel; Boyd, Steven Armen; Chicarelli, Mark Joseph;

Condroski, Kevin Ronald; Hinklin, Ronald Jay; Singh, Ajay

PA Array Biopharma Inc., USA

SO PCT Int. Appl., 276pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2007117381	A2	20071018	WO 2007-US7444	20070323
WO 2007117381	A3	20080214		
WO 2007117381	A9	20080327		

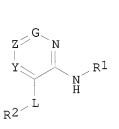
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRAI US 2006-785460P P 20060324

OS MARPAT 147:469326

GI



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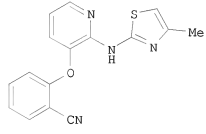


II

AB The title compds. I [L = O, S, C(O) or CHR14; Y = N or CR4; Z = N or CR3 (wherein at least one of G or Z is not N); G = N or CR11; R1 = (un)substituted thiazolyl, thiadiazolyl, thiazolopyridinyl, etc.; R2 = (un)substituted aryl, heteroaryl, cycloalkyl, etc.; R3 = H, alkyl, cycloalkyl, etc.; R4 = H, Me, Et, halo, etc.; R11 = H, Me, Et, halo, etc.; R14 = H, Me, Et, OH] that are useful in the treatment and/or prevention of diseases mediated by deficient levels of glucokinase activity, such as diabetes mellitus, were prepared E.g., a 2-step synthesis of II, starting from 2-chloropyridin-3-ol and 2-fluorobenzonitrile, was given. The exemplified compds. I have been found to have an EC50 in the range of 6 and 50,000 nM in in vitro glucokinase assay. Pharmaceutical composition comprising the compound I id disclosed. Also provided are methods of treating or preventing diseases and disorders characterized by underactivity of glucokinase or which can be treated by activating glucokinase.

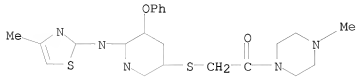
IT 953042-80-3P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyridyl thiazolyl amines as glucokinase activators)

RN 953042-80-3 CAPLUS

CN Ethanone, 1-(4-methyl-1-piperazinyl)-2-[[6-[(4-methyl-2-thiazolyl)amino]-5-phenoxy-3-pyridinyl]thio]-, hydrochloride (1:2) (CA INDEX NAME)



●2 HCl

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L10 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2007:510469 CAPLUS <<LOGINID::20080513>>

DN 146:501037

TI Preparation of pyridine derivatives and analogs thereof as glucokinase activators

IN Aicher, Thomas Daniel; Lee, Wai-Man; Hinklin, Ronald Jay; Chicarelli, Mark Joseph; Boyd, Steven Armen; Condroski, Kevin Ronald

PA Array Biopharma Inc., USA

SO PCT Int. Appl., 190pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2007053345	A1	20070510	WO 2006-US41251	20061024
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
PRAI US 2005-732037P	P	20051101		

OS MARPAT 146:501037

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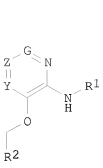

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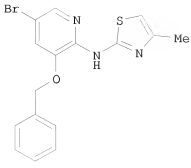


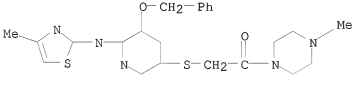
II

AB Title compds. I [R1 = (un)substituted heteroaryl; R2 = (un)substituted monocyclic aryl, bicyclic aryl or heteroaryl; Z = N or CR3, wherein R3 = H, (un)substituted alkyl, alkenyl, etc.; Y = N or CR4, wherein R4 = H, Me, Et, etc.; G = N or CR5, wherein R5 = H, Me, Et, etc.; at least one of G or Z is not N], and their pharmaceutically acceptable salts, are prepared and disclosed as glucokinase activators. Thus, e.g., II·HCl was prepared via bromination of 3-(benzyloxy)pyridin-2-amine followed by condensation with benzoyl isothiocyanate to generate 1-benzoyl-3-[3-(benzyloxy)-5-bromopyridin-2-yl]thiourea intermediate which undergoes hydrolysis and heterocyclization with 1-chloropropan-2-one. The glucokinase activity of certain compds. of the invention was evaluated in glucose S0.5 assay with S0.5 values ranging from 1.5 to 4.0 mM.

IT 936245-88-4P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of pyridine derivs. and analogs thereof as glucokinase activators)

RN 936245-88-4 CAPLUS

CN Ethanone, 1-(4-methyl-1-piperazinyl)-2-[[6-[(4-methyl-2-thiazolyl)amino]-5-(phenylmethoxy)-3-pyridinyl]thio]-, hydrochloride (1:2) (CA INDEX NAME)



●2 HCl

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2007:439172 CAPLUS <<LOGINID::20080513>>
DN 146:441825
TI Preparation of acylated piperazines as histone deacetylase (HDAC) inhibitors for treating cancer, psoriasis and related diseases
IN Srinivas, Akella Satya Surya Visweswara; Narasimhan, Kilambi; Manikandan,

Lakshmanan; Rajagopal, Sriram; Selvakumar, Thangapazham; Reddy, Gaddam Om

PA Orchid Research Laboratories Limited., India

SO U.S. Pat. Appl. Publ., 30pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 20070088043	A1	20070419	US 2006-581570	20061017
IN 2005CH01492	A	20071012	IN 2005-CH1492	20051018
WO 2007045962	A2	20070426	WO 2006-IB2890	20061017

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRAI IN 2005-CH1492 A 20051018

OS MARPAT 146:441825

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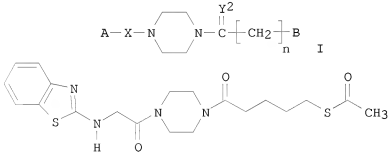


I

II

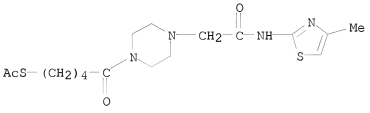
AB Title compds. I [wherein A = (un)substituted aryl, aralkyl, heterocyclyl or benzofused heteroaryl; X = NHCOCH2, CH2NHCO, etc. X and A are fused to form a cyclic structure; Y2 = O or S; B = thioate, thiol, hydroxamic group, etc.; n = 0-7] and their analogs, tautomers, stereoisomers, polymorphs, hydrates, solvates, and pharmaceutically acceptable salts were prepared as histone deacetylase (HDAC) inhibitors. For instance, successive condensation of 5-bromopentanoic acid with N-Boc-piperazine, substitution of the bromide with potassium thioacetate, removal of the Boc group with TFA, acylation of the piperazine with bromoacetyl bromide, and amination with 2-amino-1,3-benzothiazole led to double acylated piperazine II. The invented compds. showed more or less inhibition activity of cancer cell growth and HDAC. I and pharmaceutical compns. thereof are useful for the treatment of HDAC-mediated disorders, such as cancer and psoriasis.

IT 934629-14-8P 934629-53-5P 934629-56-8P

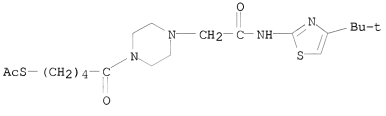
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of acylated piperazines as histone deacetylase (HDAC) inhibitors for treating cancer and psoriasis)

RN 934629-14-8 CAPLUS
CN Ethanethioic acid, S-[5-[4-[2-[(4-methyl-2-thiazolyl)amino]-2-oxoethyl]-1-piperazinyl]-5-oxopentyl] ester (CA INDEX NAME)



RN 934629-53-5 CAPLUS
CN Ethanethioic acid, S-[5-[4-[2-[[4-(1,1-dimethylethyl)-2-thiazolyl]amino]-2-oxoethyl]-1-piperazinyl]-5-oxopentyl] ester (CA INDEX NAME)



RN 934629-56-8 CAPLUS
CN Ethanethioic acid, S-[6-[4-[2-[(4-methyl-2-thiazolyl)amino]-2-oxoethyl]-1-piperazinyl]-6-oxohexyl] ester (CA INDEX NAME)